**RESEARCH PLAN for Ph.D. Degree**

# "A Study of the Efficiency, Reliability and Probity (ERP) of e-Governance initiatives of Government of Karnataka - Bangalore One"

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## TITLE OF RESEARCH

"A Study of the Efficiency, Reliability and Probity (ERP) of e-Governance initiatives of Government of Karnataka - Bangalore One"

## INTRODUCTION

Good governance is being recognized as an important goal by many countries across the world. These countries have taken up specific initiatives for open government. Freedom of information is being redefined and supported by detailed guidelines. The Internet revolution has proved to be a powerful tool for good governance initiatives. An important dimension of the Internet potential is the possibility of providing anytime- anywhere services. Along with this there is a conscious effort to put the citizen as the centre of focus of governance where citizens are being perceived as customers and clients.

E-Governance has to be citizen friendly. Delivery of services to citizens is considered a primary function of the government. In a democratic nation of over one billion people like India, e-Governance should enable seamless access to information and seamless flow of information across the state and central government in the federal set up. No country has so far implemented an e-Governance system for one billion people.

### Define E-Governance

Generally, e-Governance is understood as the use of Information and communications Technology (ICT) at all levels of the Government in order to provide services to the citizens, interaction with business enterprises and communication and exchange of information between different agencies of the Government in a speedy, convenient efficient and transparent manner. [1] But there is no accurate or standard definition to explain the e-Governance. Different governments or organizations are defined this term in as per their objective and vision. Sometimes, the term 'e-government' is also used instead of 'e-Governance'. Some widely used definitions are listed below:

According to the World Bank,

> *"E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government*

*management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions."[2]*

UNESCO defines E-Governance as:

*"Governance refers to the exercise of political, economic and administrative authority in the management of a country's affairs, including citizens' articulation of their interests and exercise of their legal rights and obligations. E-Governance may be understood as the performance of this governance via the electronic medium in order to facilitate an efficient, speedy and transparent process of disseminating information to the public, and other agencies, and for performing government administration activities."*

**Need of E-Governance**

The purpose of implementing e-governance is to enhance good governance. Good governance is generally characterised by participation, transparency and accountability. The recent advances in communication technologies and the Internet provide opportunities to transform the relationship between governments and citizens in a new way, thus contributing to the achievement of good governance goals. The use of information technology can increase the broad involvement of citizens in the process of governance at all levels by providing the possibility of on-line discussion groups and by enhancing the rapid development and effectiveness of pressure groups. Advantages for the government involve that the government may provide better service in terms of time, making governance more efficient and more effective. In addition, the transaction costs can be lowered and government services become more accessible. [3]

**Goals of E-governance**

The goals of E-Governance are:

- Better service delivery to citizens
- Ushering in transparency and accountability
- Empowering people through information
- Improved efficiency within Governments
- Improve interface with business and industry.

**Types of Interactions in e-Governance**

E-Governance facilitates interaction between different stake holders in governance. These interactions are:

1. G2G (Government to Government)
2. G2C (Government to Citizens)
3. G2B (Government to Business)
4. G2E (Government to Employees)

**E-Governance in India**

India also did not remain untouched from the changes sweeping across the world. Several e-Governance projects across the country were implemented that focussed on improving public service delivery, bringing greater transparency in government processes and ensuring more effective accountability. The National e-Governance Plan (NeGP), based on the learning from these projects was approved in May 2006 and comprises of 31 Mission Mode Projects (MMPs) and 8 Components with a vision to "make all Government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable costs to realize the basic needs of the common man". The cornerstones of NeGP are citizen centricity, identification of services & service levels, centralised planning & decentralised implementation and Public Private Partnership (PPP). [4]

Development Index (EDI) shows a progressive development in going up from the last year's world average UN E-government Survey 2014 depicts that on the world level. The emerging top leader in e-government development index is Republic of Korea with 0.9462. For India the E-government Development Index is 0.3834 and ranks 118 in the ranking of 194 with the change of 5.6%. The E- Participation index emerging top leader is Netherlands with 1.000. For India the E- Participation index is 0.6275 and ranks 40 in the ranking of 194 with the change of 46.67%. Online Service Index and Telecommunication infrastructure development index: - The online Service Index being 0.5433 and top leader is France with 1.000. Telecommunicationinfrastructure development index is 0.1372 and top leader is Monaco with 1.000. It seems that India need to do lot of to improve our Telecommunication infrastructure. [5]

## E-GOVERNANCE IN KARNATAKA

### The Karnataka ("Millennium") IT Policy

Karnataka is in the forefront of Information Technology and is called the Silicon State of India. In addition, the state capital Bangalore has shown tremendous growth in the IT Sector and is the IT Capital of India.

Karnataka was the first state to announce IT Policy in the year 1997. This policy has acted as an important catalyst for the growth of IT Industry in the state. The industry however is growing in leaps and bounds. The type and nature of business are rapidly expanding. Karnataka is becoming the center for more and more companies in sophisticated IT Products and Services. The value addition from IT Professionals of Bangalore is at the higher end of the spectrum. The cost of technology is dropping and technology itself is advancing exponentially. Thus, the prices of the new products are dropping rapidly and the same products are becoming more intelligent. IT usage is becoming more widespread and relevant. It is necessary to re-focus on the IT Policy and define it in a way that is most suited for the present. Hence the Government of Karnataka announced their "Mahithi," which is called their "Millennium IT Policy."[6]

### Objectives

Objectives of the Millennium IT Policy are:

- To utilize the power of Information Technology in the overall goal of the Government of Karnataka in eradicating poverty and empowering women
- To effectively reduce unemployment by absorbing the major share of educated youth into IT Industry
- To promote the usage of Kannada (the Regional language) in Information Technology
- To use e-governance as a tool and deliver a government that is more pro-active and responsive to its citizens
- To unleash the Karnataka Incubation engine
- To encourage business with non-English speaking countries, and,
- To maintain the pre-eminent position of both Bangalore and Karnataka in the field of Information Technology

Under the umbrella of Karnataka Government's IT policy, efforts are being made to implement the government projects electronically and take benefits of Information

Technology to the masses. Being an IT Hub, the state has excelled in rolling out various e-Governance applications. Some of the e-governance projects of Karnataka are Bhoomi(Computerization of Land Records),Kaveri (Computerization of Sub-Registrar Offices), Nemmadi, Bangalore-One, Khajane(Computerization of Treasuries), e-Procurement, Human Resource Management System (HRMS), State Data Center, Sarige (Computerization of Regional Transport Offices (RTO), Commercial Tax, Rural Digital Services (RDS), PDS computerization, etc.

Center for e-Governance, Government of Karnataka being the implementing agency for e-governance initiatives in the state, implemented State Wide Area Network **(KSWAN)**, addressing the information communication needs of the Government and its departments.[7]

**Dataquest-CMR e-Readiness Assessment of Indian States 2013**

| OVERALL RANKINGS | | | | |
|---|---|---|---|---|
| STATES | SCORE (OUT OF A MAXIMUM POSSIBLE SCORE OF 500) | RANK | STATE POPULATION (CENSUS 2011) | STATE SIZE |
| Delhi | 335.41 | 1 | 16,753,235 | S |
| Kerala | 323.06 | 2 | 33,387,677 | L |
| Goa | 310.10 | 3 | 1,457,723 | S |
| Gujarat | 300.16 | 4 | 60,383,628 | L |
| Andhra Pradesh | 298.64 | 5 | 84,665,533 | L |
| Tamil Nadu | 290.00 | 6 | 72,138,958 | L |
| Maharashtra | 282.05 | 7 | 112,372,972 | L |
| Himachal Pradesh | 277.67 | 8 | 6,856,509 | S |
| Tripura | 249.69 | 9 | 3,671,032 | S |
| Haryana | 245.51 | 10 | 25,353,081 | L |
| Karnataka | 244.46 | 11 | 61,130,704 | L |
| Punjab | 240.56 | 12 | 27,704,236 | L |
| Odisha | 235.93 | 13 | 41,947,358 | L |

Figure 1:- Overall Ranking

Reference: Dataquest."Are India sates E-ready", from http://www.dqindia.com/dataquest/specials/198761/are-indian-states-ready/page/2

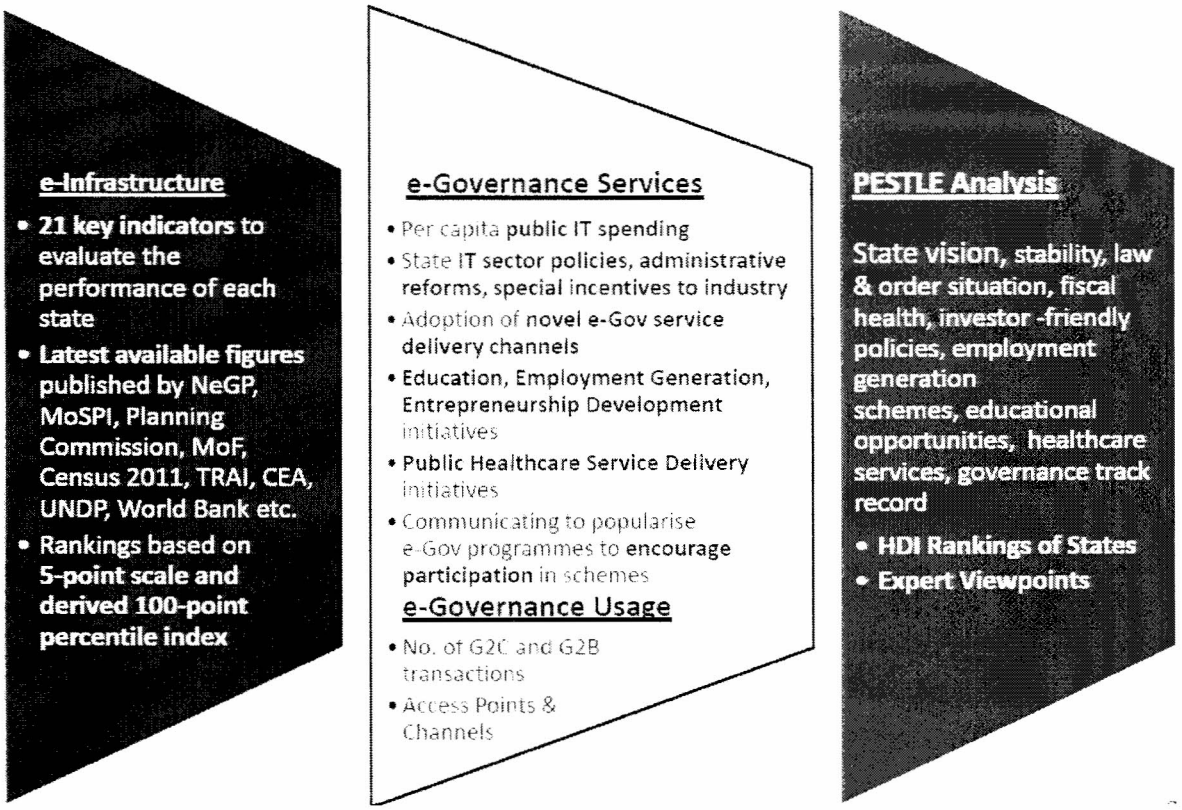
e-Infrastructure
• 21 key indicators to evaluate the performance of each state
• Latest available figures published by NeGP, MoSPI, Planning Commission, MoF, Census 2011, TRAI, CEA, UNDP, World Bank etc.
• Rankings based on 5-point scale and derived 100-point percentile index
e-Governance Services
• Per capita public IT spending
• State IT sector policies, administrative reforms, special incentives to industry
• Adoption of novel e-Gov service delivery channels
• Education, Employment Generation, Entrepreneurship Development initiatives
• Public Healthcare Service Delivery initiatives
• Communicating to popularise e-Gov programmes to encourage participation in schemes
e-Governance Usage
• No. of G2C and G2B transactions
• Access Points & Channels
PESTLE Analysis
State vision, stability, law & order situation, fiscal health, investor -friendly policies, employment generation schemes, educational opportunities, healthcare services, governance track record
• HDI Rankings of States
• Expert Viewpoints

Figure 2:- Assessment Framework

Reference: Dataquest."Are India sates E-ready", from http://www.dqindia.com/dataquest/specials/198761/are-indian-states-ready/page/2

The state of Karnataka has been an acclaimed leader in the IT Industry and its state capital Bengaluru revered as "Silicon Valley of India". Karnataka state was leader on e-Readiness scale in 2008 but according to the survey of 2013 it was ranked on 11. Assessment framework for E-Readiness is shown in figure 2. [8]

## LITERATURE REVIEW

Bedi et al (2001) focuses on the internet as a tool for self-governing, depicting existing programmes which have been implemented, such as the 'Friends Project' in Kerala. The Internet is seen as a democratic tool to give citizens freedom, accessibility and power. The publication explains the opportunities of ICTs and the need for effective governance to create an e-Democracy. The use of the internet however reduces the role of local authorities and empowers citizens. Consequently, the use of the Internet in the programmes mentioned allows participation on a non-elitist level. The link between the internet, governance and society is essentially illustrated in this book.

Heeks R.(2002) focuses on the information age and reinventing the government. It also includes relevant case studies, showing governments are unprepared for the information age reform. International practice has provided new models for reform. Electronic government projects have included those from Portugal and India. Heeks incorporates several initiatives from all over the world. Also implications for the government are addressed. Electronic democracy is also discussed in detail; models of democracy and how to strengthen relationships between the government and citizens, for example online voting. Several countries have 'government online' which broadens the gap between authority and the general public.

Weerasinghe S. (2004) states the divergence of Information Technology within the world, where South and North divides one another. The journal article presents information about a new concept within the Sri Lankan government, namely 'E-Sri Lanka'. This strategy aims to build ICTs in the country, as there is an unequal distribution of IT in Sri Lanka. Therefore the concept launched by the government aims to involve each individual, especially those from the rural sector who are desperately isolated. With the implementation of e-Governance, it is expected services (both public and private) will prosper. Therefore the economy of Sri Lanka has a positive outlook.

Gupta M.P. (2004) consists of collection of papers for the International Conference on e-Governance (ICEG 2003) in Delhi. The chapters include issues and challenges concerning e-Governance with relevant case studies, which have been successful. The book emphasizes the relationship of governance, business and citizens. By enhancing these co-relations, the role of e-Governance can continue to be successful. The application of 'Citizen Service Centers promotes empowerment and accessibility of ICTs for local people. Analysis of successful programmes regarding e-Governance in India is integrated within the volume. Elements of capacity building and organization cooperation are also included.

Okot-Uma (2005) states the features of e-Governance needed for implementation; "Change Management, Process Enablement, People Enablement, Infrastructure Enablement and Systems Enablement". The three main good practices also include "Building an IT culture, creating public awareness programmes and formulating and implementing a communication strategy". Okot-Uma accentuates that good practice in e-Governance will bring about

improved ICT development; however both governmental support and organizational commitment are essential.

Ratan's N. (2005) overview accentuates the key elements of NeGP, national connectivity, web portals and citizen service centres. This initiative uses ICTs to improve the "quality, accessibility and effectiveness" of government assistance to communities". The overview also states the progress of NeGP; some are at a theoretical stage and others have started practical schemes. The NeGP aims to increase the role of e-Governance to make it accessible to citizens. The article states several objectives to overcome problems affecting the NeGP plan. It also mentions that the World Bank has helped to fund the Government of India's programme, called 'e-Bharat'. However the main concern for NeGP is at the implementation stage.

Chandrashekhar R. (2005) describes the National e-Governance Plan (NeGP) which implements projects and is engaged on participation from public-private partnership. The NeGP Plan has been referred to "economic liberalization", which aims to be established in both the government and outside the government. The NeGP Plan aims for governments to use ICTs to "deliver efficient government services and enhance transparency in governments". There is a strong emphasis on citizen participation in order for the NeGP Plan to perform.

Abbasi S. (2005) elucidates the Institutional Framework of the NeGP (National e-Governance Plan) at the Apex, Programme and Project Level. These projects consist of State, Central and Integrated Projects, which aim to be cost effective so local communities can participate. The author also observes the notion that governments are at different stages and possess various initiatives regarding e-Governance in India. Abbasi also explains that political will is essential for effective e-Governance and policy making. "Conceptualization to project formulation and implementation" is based on knowledge although many governments are not at the same level nor do they have the expertise. There is emphasis to "create an institutional mechanism" to strengthen ICT knowledge in e-Governance.

Saxena, K.B.C. (2005) is of the opinion that E-governance initiatives in most countries promise a more citizen-centric government and reduce operational cost. Unfortunately most of these initiatives have not been able to achieve the benefits claimed. Often the reason for this failure is a techno-centric focus rather than a governance-centric focus. The paper

explores the necessary attributes of a governance-centric initiative under the banner "excellent e-governance" (e2-governance), and describe a methodology for ensuring such excellence in e-governance implementations. Excellence (or governance-centralism) in e-governance requires the initiative to be effectiveness-driven and not merely efficiency-driven. This will require the initiative to be led by"good governance" driven goal/purpose: additionally, the initiative must be outcome-focused.

Danish Dada (2006) provides a review of academic literature on the failure of e-governance in developing countries. Drawing from extensive research on the topic conducted by Richard Heeks, the paper suggests that there exist wide gaps between the current reality in developing countries and the future of e-governance systems. These gaps could be classified into three types: a hard-soft gap, implying a gap between the technology and the social context in which it is applied; a private-public gap, suggesting that what works in the private sector may not work in the public sector; and a country context gap, that arises from the application of the same e-governance systems for both the developing and developed countries. The paper recommends that administrators in developing countries must assess the situation at hand before implementing e-governance. e- governance, that has the benefit of providing clear cut, transparent, interactive, easy to implement and just solutions (in dynamic mode) in the quickest possible time frame.

Gyanendra Narayan et al (2006) defines Success of governance is define with the collaborative participation of the citizens and the government. The role of government cannot remain the same in the globalized and highly competitive world. Diffusion of e-governance is much needed to reach out to these peripheral sections in the developing countries. The model proposed in the article improves upon the "time-to-public" and "time-in-public" of e-governance services. The article provides a roadmap to bridge the rural-urban digital divide based on an analysis of successful e-governance projects. According to the paper Effective partnership can be achieved by deeper and narrower implementation of phases on horizontal time horizon while vertical time horizon requires commitment, capital and competence in relatively higher proportion from government.

Y. N. Chen et al (2006) describes that more governments invest heavily in e-government design and implementation. Most, if not all, currently published e-government strategies are based on successful experiences from developed countries, which may not be directly applicable to developing countries. This study summarizes differences between

developed/developing countries. According to it developing countries should consider their own positions in terms of critical success factor as specified in the proposed e-government strategy framework and learn from other countries' successful e-government implementation strategies, and then work out their e-government implementation strategies that fit with their countries' characteristics and conditions.

Mohammad Shakil Akther et al (2007) in their study on an e-government project in Bangladesh highlight that most e-government projects within developing countries employ high-technology intervention whereas citizens are not ready for this. There are successful projects which took low end route. This paper examines one such project to find out the reasons behind its success. The research concludes that stakeholders' participation is the driving factor for success. The major issue is not IT, but an understanding between the citizen population and their complimentary governmental entity, which acts as the critical factor for triumph in e-government. Due to the active participation of stakeholders, both the birth registration and immunisation rate have increased where concurrently other unforeseen benefits were realised; such as image enhancing of public and elected officials, use of data for school enrolment and decision making for vaccine management for society as a whole.

Sanjay Tejasvee et al (2011) defined e-Governance includes well-originated, efficient, transparent and reliable delivery of public services in a definite and time-saving way to citizens. The skill-sets identified as being necessary for handling programmed/ project level issues are Business Process Reengineering, Change Management, Financial Management and Technology. The paper concludes that various departments are participating in the initiative for success of the e-governance in Rajasthan, however, several questionnaires were found which shows the insufficiency, less security, departmental co-operations more cost in infrastructure and much more but as the move ahead in implementation of different types of projects.

Manisha anil kumbhar et al (2011) states e-governance is use of Information Technology (IT) to enhance the access to and delivery of government services to benefit citizens, business partners and employees. The paper mainly focuses on how e-governance is a powerful tool for delivering different services at citizen's doorstep and how implementation of e-governance helps to reduce the work load and increase the efficiency of employees & Speed up the Processes. The purpose of the study was to find out awareness of citizens about e-

governance & is it really useful to them to interact with Pune Municipal Corporation for their needs and for the ease of administrative work.

## RATIONALE

The aim of the research is to assess the development and e-Governance initiative with respect to ICT enabled Government to citizen services with specific reference to Bangalore One Project in Karnataka. The study tries to examine the Bangalore One project mainly from the perspective of citizens.

Despite of tall claim the e-government projects of Karnataka is yet to deliver the results. It is surprising that being a silicon valley of India why it is not able to give satisfactory results. Having the entire IT infrastructure why it is delivering to fail the satisfactory results.

## OBJECTIVE

- Evaluate the design and the functions of the E-Governance Bangalore One Project for the delivery E- Government services.
- How far has the Bangalore One Project succeeded in achieving its objectives?
- To study Efficiency, Reliability and Probity (ERP) of Bangalore One and to find out significant outcomes.
- Comparison study of e-Governance initiatives in Karnataka (Bangalore One) and Rajasthan (E-Mitra).

## METHODOLOGY

The research will be based on Twin Methodology. Twin methodologies of the research are:

1. Case Method
2. Empirical Research

### Case Method

This research will study the case of Karnataka Government's E-Government Project – Bangalore One

### Empirical Method

The Research Will Study the Impact of Karnataka Government's eGovernment Project Bangalore One on the Efficiency, Effectiveness of Government Services to its Citizen as Compared to Existing Brick and Mortar Services by Surveying the Experience of the Recipients of the Proposed eGovernment Services

**Data Collection**

For this study, the data will be collected from various sources.

- Data will be collected mostly from Multiple Primary Sources
- Data will be gathered from e-governance websites, official reports, and Government Notes and Orders from Project Leaders and Government Secretaries
- Data will be gathered from the Target Citizens by using Structured Questionnaire.
- Researcher will be using Random Sampling Technique for collecting the data.
- Six Bangalore one centre of Bangalore will be covered.
- Tentative Sample size will be 6* 50 = 300 users of eGovernment Services from six Bangalore one centre

**Data Analysis**

To achieve research objectives, our analysis will perform as follows. Researcher will analyse the data collected from websites, official reports, and Officers Feedbacks to conduct the cased study to define the objectives and Intents of Karnataka Government. In Phase II, researcher will verify and Compare the Intents and Objectives with Accomplishments with Reference to Efficiency, Reliability and Probity (ERP) analysis for Karnataka e-governance project Bangalore One. Third, gap analysis will be conducted which determine the gap between citizen needs and Bangalore One e-governance vision and to propose significant outcomes.

**POSSIBLE OUTCOMES**

- What is the gap between the Bangalore One Government's E-vision and how they will reach to the Digitally Divided Citizens of Bangalore
- What are the e-Government services of Bangalore One and to what extend those services have been delivered

- Lesson learnt from e-Government project Bangalore one in Karnataka

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